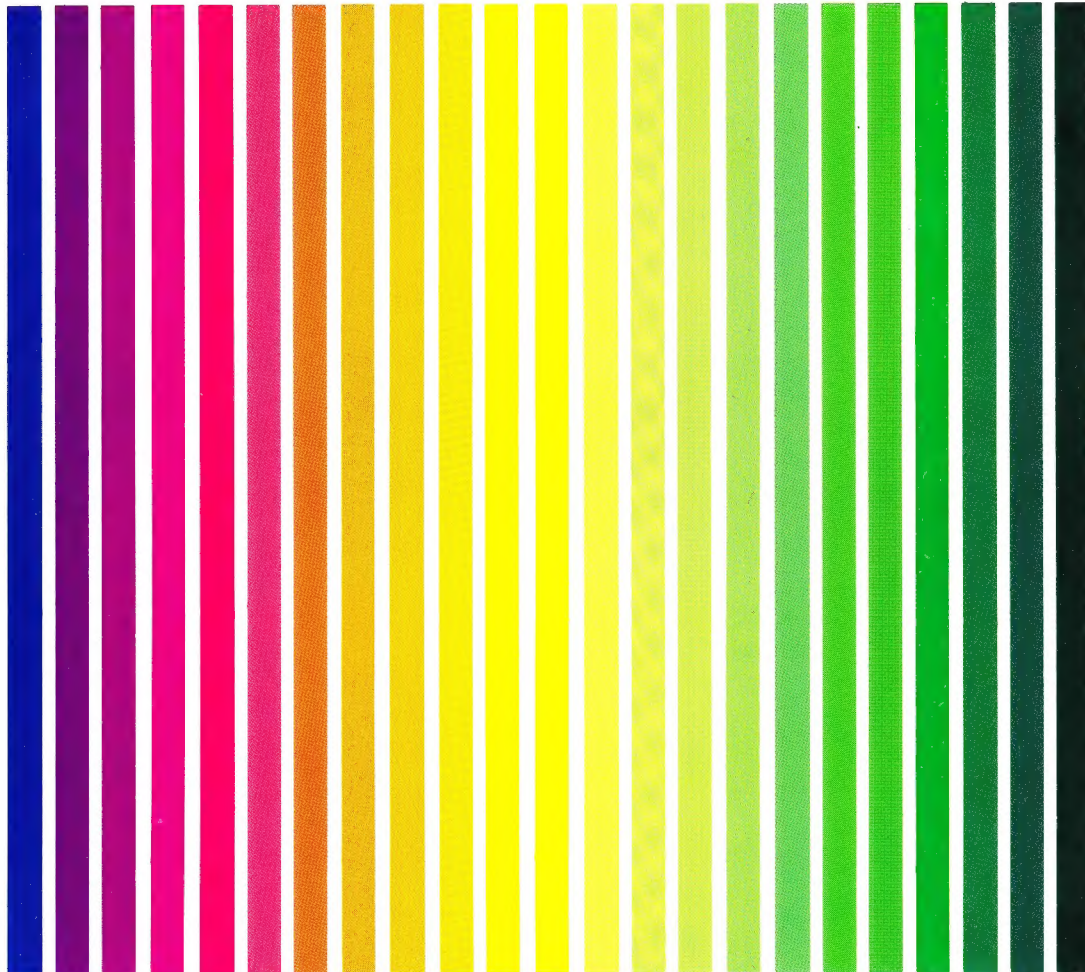# CPX

ATARI® PROGRAM EXCHANGE

Ronald and Lynn Marcuse

WEEKLY PLANNER

Store and print dates and appointments

Diskette: 32K (APX-20079)

User-Written Software for ATARI Home Computers

WEEKLY PLANNER

by

Ronald & Lynn Marcuse

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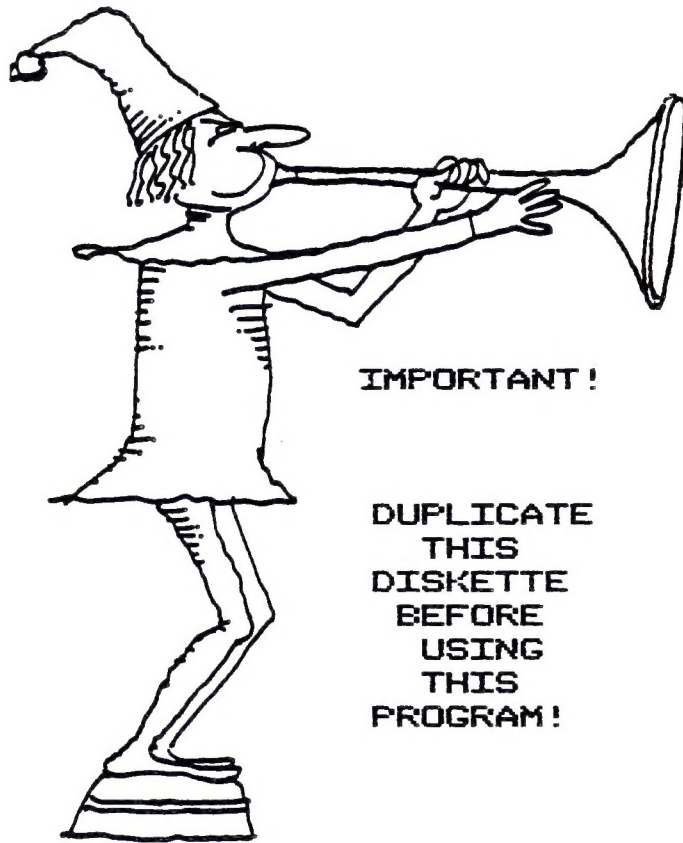ATARI 810™ Disk Drive
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IMPORTANT!

DUPLICATE
THIS
DISKETTE
BEFORE
USING
THIS
PROGRAM!

This APX diskette is unnotched to protect the software against accidental erasure. However, this protection also prevents a program from storing information on the diskette. The program you've purchased involves storing information. Therefore, before you can use the program, you must duplicate the contents of the diskette onto a notched diskette that doesn't have a write-protect tab covering the notch.

To duplicate the diskette, call the Disk Operating System (DOS) menu and select option J, Duplicate Disk. You can use this option with a single disk drive by manually swapping source (the APX diskette) and destination (a notched diskette) until the duplication process is complete. You can also use this option with multiple disk drive systems by inserting source and destination diskettes in two separate drives and letting the duplication process proceed automatically. (Note. This option copies sector by sector. Therefore, when the duplication is complete, any files previously stored on the destination diskette will have been destroyed.)

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INTRODUCTION

OVERVIEW

WEEKLY PLANNER lets you store all your important dates, appointments, and other time-related events on your ATARI Home Computer. You don't need any programming experience to use WEEKLY PLANNER.

You organize and maintain your information in records. A series of menu options and prompts guide you through entering, modifying, and removing units of information in these records. The program's "wild card" feature saves you time by letting you enter only once information applying to more than one event, such as regularly scheduled appointments and installment payments.

When you want to search your file, you use other options to browse through record summaries or complete records. Again, wild cards let you do general searches of your file, such as all the records for December (a specific search term) for every person in the file (a wild card). The program's indexing design assures rapid retrieval of your records, regardless of the size of your file. Whenever you update your records, you use another function to compress and sort your data and rebuild the index.

WEEKLY PLANNER generates formatted monthly calendars and daily appointment listings, based on the information you've stored, for any period between 1981 and 1999.

REQUIRED ACCESSORIES

32K RAM
ATARI 810 Disk Drive
ATARI BASIC Language Cartridge

OPTIONAL ACCESSORIES

ATARI 80-Column Printer or equivalent printer

CONTACTING THE AUTHORS

Users wishing to contact the authors about WEEKLY PLANNER may write to them at:

    168 Coachman Drive North
    Freehold, NJ 07728

or call them at:

    201/431-2305

TERMS USED IN THESE INSTRUCTIONS

Before discussing in detail how to use WEEKLY PLANNER, let's go over several terms used in these instructions. Definitions follow for all the underlined terms.

The system uses a file structure composed of index records and data records. The small index record retrieves the larger data record. Each of these records is made up of a set of data fields. You search the file by typing in a search key, composed of a value for each of the fields of the index records. You may use either specific data or wild card characters in both the index record and the search key. Occasionally, you need to reorganize the file to compress and realign the index and data values for efficient searching.

To illustrate each term, we'll use the sample New Year's Day record included on your diskette. The fields shared by both the index records and the data records are: (1) year, (2) month, (3) day, (4) time, and (5) person. You may search for records in your file using any of these fields. The data record also contains three more fields: (6) type, (7) event, and (8) description. You can't search your file with these fields.

The sample record contains these values for the fields (the "*" is the wild card feature permitting single entry for multiple occurring events):

```
(1)  **
(2)  01
(3)  01
(4)  **
(5)  **
(6)  H
(7)  NEW YEAR'S DAY
(8)  HAPPY NEW YEAR!
```

FILE

A set of records sharing common units of information and a common storage area.

RECORD

One set of fields containing all the information about one entity, for example, the New Year's Day record.

FIELD

One kind of information within a record, for example, the year field.

FIELD VALUE

The specific information stored in a field, for example, the value "01" for the month field.

KEY

The field or fields by which the system identifies a record. The key in WEEKLY PLANNER comprises the year, month, day, time, and person fields.

SEARCH KEY

The field value(s) the program uses to locate records in response to your search

request.

INDEX RECORD
A small record containing the key (see "KEY" above) and the location of the corresponding data record stored on the diskette.

DATA RECORD
The complete set of field values comprising a record.

FILE REORGANIZATION
The process by which the system compresses, sorts, and stores the data records and creates a new index.

WILD CARD
A character that can represent all other characters. WEEKLY PLANNER uses the asterisk (*) as its wild card. (The ASCII value "0" is the wild card's internal representation.)

GETTING STARTED

LOADING WEEKLY PLANNER INTO COMPUTER MEMORY

1. Insert the ATARI BASIC Language Cartridge in the (Left Cartridge) slot of your computer.

2. Turn on your disk drive (use disk drive one if you have more than one drive).

3. When the BUSY light goes out, open the disk drive door and insert the WEEKLY PLANNER diskette with the label in the lower right-hand corner nearest to you. Close the door.

4. Turn on your computer and TV set.

5. When the READY prompt displays on your TV screen, type RUN "D:CAL" and press the RETURN key.

6. The program will load into computer memory in about 15 to 20 seconds and then display the message:

        ENTER DATE (MMDDYY) =>

Type in the numeric date and press the RETURN key. For example, if today is February 8, 1982, then type 020882 and press the RETURN key.

7. The program's Main Menu, described below, then displays.

8. If you're planning to use your printer, turn it and the ATARI 850 Interface Module on.

SAMPLE SESSION

Let's go through a brief sample session of WEEKLY PLANNER to illustrate how easy it is to use. We'll browse through the sample calendar file on your diskette. By browsing, we mean we want to look at only partial records rather than complete ones. Browsing causes the system to display the date, time, person, and event fields for up to twenty records at a time that meet your search statement.

First, we'll select the INQUIRY/UPDATE option on the Main Menu:

```
        PLANNING CALENDAR 1.0

            MENU

    =>INQUIRY/UPDATE
       ADD
       APPOINTMENT LIST
       CALENDAR
       REORGANIZE FILE
       END SESSION

    MONDAY FEBRUARY 8, 1982

    POSITION WITH < & > KEYS

        PRESS [RETURN]

    Figure 1  Main Menu
```

We select an option by using the "<" and ">" keys, located on the right-hand side of the
top row of keys, to position the arrow (the "cursor") at the first option and then we
press the RETURN key. The system then displays the available options within
INQUIRY/UPDATE:

```
        INQUIRY/UPDATE SEARCH KEY:
        DATE
        TIME
        PERSON
                =>BROWSE
                   INQUIRY
                   UPDATE
                   END

    Figure 2   INQUIRY / UPDATE Options
```

Because we'll browse through the entire sample file, we'll use the wild card character
(*) for all the search terms (time, date, and person). The cursor is positioned next to
the DATE part of the key when this screen displays, so type * and press the RETURN key.
The cursor then drops to the next field. Do the same for all three key fields. The system
then adds the option prompts (BROWSE, INQUIRY, UPDATE, and END). We'll select BROWSE by
pressing the RETURN key (since the cursor is already positioned next to that option).

The system then searches the file for all records and displays these partial records
("PER" stands for PERSON):

```
     DATE       TIME  PER     EVENT

    1 /1 /**  *        *   NEW YEAR'S DAY
    2 /12/**  *        *   LINCOLNS BRTHDAY
    2 /22/**  *        *   WASHINGTON BRDY
    5 /30/**  *        *   MEMORIAL DAY
    7 / 4/**  *        *   INDEPENDEN DAY
    12/25/**  *        *   CHRISTMAS
    2 /13/82  0900 AM RM  TEST RECORD 1
    2 /13/82  0200 PM RM  TEST RECORD 2
         END OF FILE
    MORE INQUIRIES/UPDATES (Y/N)?
```

Figure 3   INQUIRY/BROWSE Display

The asterisks appearing in these records indicate that wild cards were used in place of
real values in some fields. We'll type an N in response to the prompt at the bottom of
the display to return to the Main Menu. (Typing a Y would return you to the
INQUIRY/UPDATE Options display.)

Detailed explanations of the various options and selections appear in the section
describing the options.

USING WILD CARDS

The concept of a wild card character is important for understanding how to use WEEKLY
PLANNER efficiently. When you create a record, you may enter the wild card character (*)
instead of a value in any of the fields comprising the key—DATE (MONTH, DATE, and YEAR),
TIME, AND PERSON. You can also use this character instead of values when you create a
search statement. The effect of the wild card differs somewhat for these two activities.

By placing the wild card character in the record itself, the system can use the same
record numerous times. For example, in the New Year's Day record, notice that the MONTH
and DAY fields contain real values (01), whereas the year field contains wild card
characters. The system therefore recognizes that this record applies to all years and
it retrieves this record regardless of the year specified in your search statement (if
this record matches the rest of your statement, that is). This feature means that only
one record need be in your file for all the New Year's days between 1981 and 1999,
saving you record entry time and saving the system storage space.

Another example of storing wild cards within records would be for an event occurring on a
monthly cycle, such as a mortgage payment. Again, you combine a partial value with a wild
card in the DATE field, such as **15** for an event occurring on the fifteenth of every
month of every year.

You can use this concept for any of the fields used as part of the index key. An asterisk
in the TIME field indicates the record applies to the entire day. One in the PERSON field
indicates the record applies to all people using the system. (The PERSON field lets you
print separate calendars and appointment sheets for each person using the system.)

-6-

Using all wild cards in your search statement brings up <u>all</u> records in your file. Using wild cards for part of your search statement brings up <u>all</u> records in the file as far as the wild card part of the key goes, but the program narrows the results according to the data values you used. For example, if you enter wild cards for DATE and TIME and initials for PERSON, then the system would retrieve all records for that person, but none for anyone else in the system.

USING WEEKLY PLANNER

INTRODUCTION

The Main Menu, shown in Figure 1, contains the six major options of WEEKLY PLANNER. Use option 1, INQUIRY/UPDATE, to search for specific records, browse through your file, and update records. Use option 2, ADD, to add records to your file. Use option 3, APPOINTMENT LIST, to print formatted appointment listings. Use option 4, CALENDAR, to print monthly calendars. Use option 5, REORGANIZE FILE, to compress the data portion of the file and to rebuild the index after updating your file. Use option 6, END SESSION, to complete your work in WEEKLY PLANNER and return to the READY prompt in BASIC.

CAUTION

TO AVOID LOSING VALUABLE DATA, DON'T USE THE SYSTEM RESET KEY.

For system integrity, the program has disabled the BREAK key.

Entering data, selecting options, and answering prompts

In general, you use the "<" and ">" keys to move an arrow pointer to your desired option. The pointer wraps around in both directions; that is, it moves to the top after reaching the bottom and vice versa. The ">" key moves the arrow downward and the "<" key moves it upward. When the arrow points to your desired selection, press the RETURN key. Pressing any other key during this process results in no action.

Use only uppercase letters when you enter letters in response to system prompts. Remember also that the computer does not interpret a character's uppercase and lowercase as being the same character.

When you enter field values for various activities, such as adding or updating records or entering a search statement, press the RETURN key to signal completion of your input. All other input consists of typing letters in response to prompts; pressing the RETURN key isn't necessary in these cases.

Format for entering data

The format of the data you enter is important. When entering a date, you must type a valid six-character numeric date. If the month or day is only one character (for example, 3 for March), prefix the number with a zero (for example, 03 for March). When you enter a valid date, the system translates these numbers into English displays, adding the day of the week. For example, if you enter 040782, the system displays APRIL 07 1982 WEDNESDAY.

You may also substitute the wild card character (*) in any of the data fields, to allow the data to satisfy several conditions. For example, the date 1225** will generate a record for December 25, 1981; December 25, 1982; ...; and December 25, 1999. The GETTING STARTED section contains more discussion of wild cards.

Diskette write-protect feature

WEEKLY PLANNER uses both input and output record processing. Therefore, you'll need to
duplicate the programs on the unnotched diskette you purchased from APX to one containing
a notch and then leave this write-protect notch uncovered. To duplicate all the files on
the diskette, exit the WEEKLY PLANNER and type DOS. When the Disk Operating System me
displays, use option J, DUPLICATE DISK, and follow the prompts. The index and data files
may become misaligned during the copying process. If this occurs, use the file
reorganization function to correct the problem (see option 5 below).

MENU SELECTIONS

OPTION 1 -- INQUIRY / UPDATE

Use option 1 to locate and/or update records in your file. The system first asks you to enter a search key (see Figure 2). Your search key consists of data in three fields: (1) DATE (six numbers in the form MMDDYY); (2) TIME (four numbers in the form HHMM, plus AM or PM or NO--for "noon"--or MI--for "midnight"); and (3) PERSON (two characters, usually initials).

You may enter data, the wild card character (*), or a combination. Examples of acceptable entries for the DATE field are:

```
*
011582
0115**
***82
**15**
```

Notice that you must use two asterisks to fill the field segment (month, day, or year), but that one asterisk suffices for the whole field.

Use the same procedures to enter values for the TIME and PERSON fields. For TIME, a wild card character lets you select any time. You need enter AM or PM only if you also enter a time (for example, 0900 AM). You may omit the space between the time and "AM". Press the RETURN key after entering each value in your search statement to signal completion of your input.

When you've completed entering your search statement, the system displays the INQUIRY/UPDATE options below your search statement. Select an option by positioning the arrow and then pressing the RETURN key when you've lined up the pointer correctly. The options within INQUIRY/UPDATE are as follows.

BROWSE

This option displays the DATE, TIME, PERSON, and EVENT values for the first twenty records satisfying your search statement. If the system retrieves more than twenty records, you may continue the display by pressing any key when the screen fills up. Type an E to end the function and return to the Main Menu. Figure 3 shows a sample BROWSE display.

INQUIRY

This option is similar to the BROWSE option, but your search results display one at a time as full records. A record has this format:

```
             DATE        JANUARY 1   19**
             TIME        *
             PERSON      *
             TYPE        H
             EVENT       NEW YEAR'S DAY
             DESCRIP     HAPPY NEW YEAR!

                  => CONTINUE
                     END
```

Figure 4   INQUIRY Display

Position the arrow to CONTINUE and press the RETURN key to display the next record
in your search results. Position the arrow to END and press the RETURN key to return
to the Main Menu.

UPDATE

Use this option to change information in records already in your file. The format of
the display is as follows:

```
             DATE        =>JANUARY 1   19**
             TIME        *
             PERSON      *
             TYPE        H
             EVENT       NEW YEARS DAY
             DESCRIP     HAPPY NEW YEAR !!

                     DELETE
                     CONTINUE
                     END
```

Figure 5   UPDATE Display

The arrow pointing to the first field is your selector. To update any field, move
the arrow to that field value and press the RETURN key. Then type in the new value,
again pressing the RETURN key to signal completion.

An important note about the UPDATE function and the DATE field. If you're updating
the DATE field, the program erases the existing date. You may then enter a numeric
date or a combination of numeric and wild card characters.

You can also use the ATARI Computer's Screen Editor features to insert characters or
words into the line. To do so, move the arrow to the position where you want to make
the insertion and use CONTROL-INSERT to make room for the new character(s). Refer to
your ATARI Home Computer Operators Manual for more information about the screen
editing functions.

To delete the entire record, move the arrow to the DELETE option and press the

RETURN key. When you've completed updating the record, move the arrow either to CONTINUE (to go to the next record in your search result, if any) or END (to return to the Main Menu).

OPTION 2 -- ADD

Use this selection to add records to your file. the system displays a formatted entry screen for all the field positions, as follows:

```
          TO ADD, ENTER:
     DATE    ?_
     TIME
     PERSON
     TYPE
     EVENT
     DESCRIP

        TYPE Y IF OK

        MORE ADDS (Y/N)

     Figure 6   ADD Record Display
```

For the DATE field, type a numeric date (e.g., 060982 for June 9, 1982) and press the RETURN key. You may use the wild card character in place of data for the DATE, TIME, and PERSON fields. See the discussion under the GETTING STARTED section for more information about using wild cards in records.

Repeat typing in your data and pressing the RETURN key for each field. The maximum number of characters allowed for a field is as follows ("alphanumeric" includes both alphabetical and numeric characters):

```
     DATE - 6 numeric in the form MMDDYY
     TIME - 4 numeric in the form HHMM, plus "AM" or "PM"
            or "NO" or "MI", with an optional space
            between the time and "AM"
     PERSON - 2 alphanumeric
     TYPE - 1 alphanumeric
     EVENT - 15 alphanumeric
     DESCRIP - 26 alphanumeric
```

The system edits the values for some fields. For example, it won't accept a value of 13 for the MM part of DATE.

Use the TYPE field to classify the kinds of records you store in your file. For example, "H" can represent holidays, "B" birthdays, "A" appointments, "P" payments, and so on.

Enter a person's first and last initials in the PERSON field (or you can use numbers, if you're so inclined). This field is especially important because it lets you store records

for several persons yet extract those pertaining to only one person for display or
printing calendars and appointment sheets.

Use the EVENT field for an abbreviated version of the longer description field. Printer
width limitations of 132 characters prevent longer descriptions of the event from
appearing on the monthly calendars. The appointment sheets, however, will print the
entire record. If you attempt to add more records than the system can handle (420 with
32K of RAM, 575 with 40K or more of RAM), the program displays the message "PLEASE
REORGANIZE FILE".

OPTION 3 -- APPOINTMENT LIST

Use this option to print formatted appointment sheets, three days to a page, for any
period between January 1, 1981 and December 31, 1999. You have several options for
formatting these sheets. You choose your options via the following system prompts:

```
             APPOINTMENT LIST
         ENTER PERIOD (MMDDYY)
         FROM =>
           TO =>
         BLANK (Y/N)
         PERSON =>
         CHECK PAPER & PRINTER
         TYPE Y TO PRINT
         TYPE 1 (12 HR) OR 2 (24 HR)
```

Figure 7   APPOINTMENT LIST Prompts

For each prompt, type values (no wild cards, except for PERSON) or one of the indicated
responses (e.g., Y for BLANK). The FROM and TO dates must be valid numeric dates and the
TO date must be later than the FROM date.

Type Y in response to the BLANK prompt to print appointment sheets without data. Type N
to print sheets with all your appointments, dates, and so on, appearing in the proper
date and time. If you don't select the BLANK sheet, the system prompts you for the
initials of the PERSON for whom you want the list printed. Enter the person's initials to
print appointment sheets only for that individual. Type a wild card asterisk to print one
listing for everyone.

Make sure your printer is attached to your interface module, the printer and module are
turned on, and the printer is in ONLINE mode. If the program can't send output to the
printer, it will redisplay the CHECK PAPER & PRINTER prompt. WEEKLY PLANNER is coded for
the ATARI 825 80-Column Printer. If you have an EPSON MX-80 or other equivalent printer,
see the ADVANCED INFORMATION section for instructions for modifying the line of code to
permit their usage.

If you haven't made any errors and still want to print the appointment listing, type Y in
response to the TYPE Y TO PRINT prompt. Pressing any other key aborts the printing option
and returns you to the Main Menu.

The final prompt, TYPE 1 (12 HR) OR 2 (24 HR), lets you choose the time period covered by the appointment list. Type a 1 to select a 12-hour period, beginning at 8:00 AM and ending at 9:30 PM; with half-hour intervals. Type a 2 to print a 24-hour listing, with hour intervals.

After you answer the last prompt, the program prints your specified listing and then returns you to the Main Menu. If you've updated any of the fields comprising the key since the last time you reorganized the file, you should reorganize the file again (use option 5 below) before printing a listing. Figure 9 shows a sample APPOINTMENT LIST. You may press the ESC key to suspend printing of the appointment list. The function will abort when it completes the printing for that date.

OPTION 4 -- CALENDAR

Use this option to print monthly calendar sheets. The procedure is similar to that for printing appointment sheets. For the FROM and TO dates, you can type any date appearing in the month(s) you want generated. For example, typing 091581 for FROM and 110381 for TO causes monthly calendars for September, October, and November of 1981 to print. To print one month, type the same date in the one month (e.g., 091581 and 091581 for a September 1981 calendar).

Answer the BLANK and PERSON prompts the same as you would to print an appointment listing.

The final prompt of the appointment listing (the hour span) doesn't appear in this option's prompt display.

The calendar can print up to four events per day. If you have more than four in any day, only the first four will appear on the calendar. After the system prints your specified calendars, it returns you to the Main Menu. If you've updated any of the fields comprising the key since the last time you reorganized the file, you should reorganize the file again (use option 5 below) before printing a calendar. Figure 8 shows a sample calendar. You may also press the ESC key to abort this print option, but it won't actually terminate until it reaches the end of the month.

OPTION 5 -- REORGANIZE FILE

Use this option to compress and sort the data component of your file and to rebuild the index whenever you update records. Use this option before printing either the calendar or appointment list after updating your records. In compressing the file, the system removes all records earlier than the current month and year (excluding wild card dates).

After selecting this option, a series of system messages display as the reorganization program loads into computer memory and runs. The final message:

        RETURN TO CALENDAR (Y/N)

is the prompt for you to indicate whether you want to return to the Main Menu (in which case the system reloads the main WEEKLY PLANNER program into computer memory) or whether you want to return to the READY prompt in BASIC.

OPTION 6 -- END SESSION

Use this option to end your current WEEKLY PLANNER session and return to the READY promp
in BASIC. Do not use the SYSTEM RESET key to end the program.

If you updated any of the fields comprising the record key, the message "PLEASE
REORGANIZE FILE" displays. You can disregard this request by reselecting the END SESSION
option.

ADVANCED TECHNICAL INFORMATION

SYSTEM ELEMENTS AND DESIGN

THE WEEKLY PLANNER SYSTEM comprises three programs: CAL, CALORG and AUTORUN.SYS. The first of these is the main program. The second is a short BASIC program used to read the entire file into computer memory. The third consists of two machine language subroutines used for high-speed searching and sorting.

The WEEKLY PLANNER file structure is indexed sequential. A 52-byte data record is sequentially stored on diskette and the 10-byte index record, after being loaded into computer memory when turning on your machine, points to the data component. The first seven bytes of both records constitute the record key: DATE (YEAR, MONTH, and DAY), TIME (24-hour clock), and PERSON. The key has been "packed" by using the ASCII values (base 256) as the value of the data. For example, a two-character year has been forced into one position by converting the string value of the year (81, 81, and so on) into the ASCII character of that value. This technique increases both the loading speed and the number of index records storable in computer memory. The last three positions of the index record point to the location of the matching data component. These are stored as ASCII values of base 128 numbers.

The high-speed search routine can be called with two options. The first allows wild cards on both the search key and index record to satisfy the equality test. The second lets only an index wild card return a matched condition. The different search requirements of the INQUIRY/UPDATE and CALENDAR/APPOINTMENT LIST options required the two strategies.

The reorganization program isn't normally in computer memory. This technique permits the dimensioning of the large string necessary to sort the file. The variables controlling the compression phase (deletion of old events) are POKEd into safe locations before the program is called.

FILE STORAGE AND VOLUME OF DATA

The number of records the system accepts depends on the amount of free memory in your computer. Loading the entire index when you start up your system and loading the entire file during a file reorganization are the limiting factors. A computer with 32K of RAM can store 420 records; one with 40K of RAM can support 575 records.

MODIFYING THE DISPLAY SCREEN MARGINS

WEEKLY PLANNER uses a full 40-column line on your TV screen. This presents no problem if your screen is correctly balanced. If it isn't, however, the system will use a 39-column line if you modify one line of code in the program, which contains a POKE statement adjusting the margins to 40 columns. You need do this only once and the program will thereafter use the 39-column display line.

To make this modification, load the program into computer memory as follows:

1. Clear out computer memory by typing the direct mode command NEW.

2. Type LOAD "D:CAL" and press the RETURN key.

3. When the READY prompt displays, type LIST 35 and press the RETURN key.

4. The following line will display on the screen:

        35 N$="   ":C$="   ":E$="   ":POKE 82,0

5. Move the cursor to the POKE statement and substitute 1 for the 0 (i.e., POKE 82,1) and press the RETURN key.

6. Store the revised program on diskette by typing the command SAVE "D:CAL" .

USING PRINTERS OTHER THAN THE ATARI 825 80-COLUMN PRINTER

The program is formatted to take into account the control requirements of the ATARI 825 80-Column Printer. However, by changing one line of code, you can modify the program to accommodate an EPSON MX-80 or other 80/132-column printer. First, locate the control characters required for compressed type, expanded type, and normal (sometimes interpreted as cancel compressed) type in your printer manual. Then list line 35 as described in the previous section. Substitute your control character(s) for the N$ (normal), C$ (compressed), and E$ (expanded) characters in the line. Use Appendix C and the rear cover of the ATARI BASIC Reference Manual to translate the ASCII decimal or hex values into the applicable control characters. Then save the revised program as described in the previous section.

For the EPSON MX-80 printer, line 35 should look as follows:

        35 N$="   ":C$="   ":E$="   ":POKE 82,0

FEBRUARY 1982

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12 LINCOLNS BRTHDY	13 0900 AM RM TEST RECORD 1 0200 PM RM TEST RECORD 2
14	15	16	17	18	19	20
21	22 WASHINGTON BRDY	23	24	25	26	27
28						

```
******************************************************************************
*                                                                            *
*                        FEBRUARY  1982                                      *
*                                                                            *
******************************************************************************
X                                                                            X
X                                    THURSDAY       11                       X
X    8 :00   . . . . . . . . . . . . . . . . . . .    3 :00   . . . . . . . . X
X    8 :30   . . . . . . . . . . . . . . . . . . .    3 :30   . . . . . . . . X
X    9 :00   . . . . . . . . . . . . . . . . . . .    4 :00   . . . . . . . . X
X    9 :30   . . . . . . . . . . . . . . . . . . .    4 :30   . . . . . . . . X
X   10:00   . . . . . . . . . . . . . . . . . . .    5 :00   . . . . . . . . X
X   10:30   . . . . . . . . . . . . . . . . . . .    5 :30   . . . . . . . . X
X   11:00   . . . . . . . . . . . . . . . . . . .    6 :00   . . . . . . . . X
X   11:30   . . . . . . . . . . . . . . . . . . .    6 :30   . . . . . . . . X
X   12:00   . . . . . . . . . . . . . . . . . . .    7 :00   . . . . . . . . X
X   12:30   . . . . . . . . . . . . . . . . . . .    7 :30   . . . . . . . . X
X    1 :00   . . . . . . . . . . . . . . . . . . .    8 :00   . . . . . . . . X
X    1 :30   . . . . . . . . . . . . . . . . . . .    8 :30   . . . . . . . . X
X    2 :00   . . . . . . . . . . . . . . . . . . .    9 :00   . . . . . . . . X
X    2 :30   . . . . . . . . . . . . . . . . . . .    9 :30   . . . . . . . . X
X                                                                            X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X                                                                            X
X                                    FRIDAY        12                        X
X          LINCOLNS BRTHDY   ORIGINAL DATE                                   X
X    8 :00   . . . . . . . . . . . . . . . . . . .    3 :00   . . . . . . . . X
X    8 :30   . . . . . . . . . . . . . . . . . . .    3 :30   . . . . . . . . X
X    9 :00   . . . . . . . . . . . . . . . . . . .    4 :00   . . . . . . . . X
X    9 :30   . . . . . . . . . . . . . . . . . . .    4 :30   . . . . . . . . X
X   10:00   . . . . . . . . . . . . . . . . . . .    5 :00   . . . . . . . . X
X   10:30   . . . . . . . . . . . . . . . . . . .    5 :30   . . . . . . . . X
X   11:00   . . . . . . . . . . . . . . . . . . .    6 :00   . . . . . . . . X
X   11:30   . . . . . . . . . . . . . . . . . . .    6 :30   . . . . . . . . X
X   12:00   . . . . . . . . . . . . . . . . . . .    7 :00   . . . . . . . . X
X   12:30   . . . . . . . . . . . . . . . . . . .    7 :30   . . . . . . . . X
X    1 :00   . . . . . . . . . . . . . . . . . . .    8 :00   . . . . . . . . X
X    1 :30   . . . . . . . . . . . . . . . . . . .    8 :30   . . . . . . . . X
X    2 :00   . . . . . . . . . . . . . . . . . . .    9 :00   . . . . . . . . X
X    2 :30   . . . . . . . . . . . . . . . . . . .    9 :30   . . . . . . . . X
X                                                                            X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X                                                                            X
X                                    SATURDAY      13                        X
X    8 :00   . . . . . . . . . . . . . . . . . . .    3 :00   . . . . . . . . X
X    8 :30   . . . . . . . . . . . . . . . . . . .    3 :30   . . . . . . . . X
X    9 :00   RM   TEST RECORD 1                       4 :00   . . . . . . . . X
X    9 :30   . . . . . . . . . . . . . . . . . . .    4 :30   . . . . . . . . X
X   10:00   . . . . . . . . . . . . . . . . . . .    5 :00   . . . . . . . . X
X   10:30   . . . . . . . . . . . . . . . . . . .    5 :30   . . . . . . . . X
X   11:00   . . . . . . . . . . . . . . . . . . .    6 :00   . . . . . . . . X
X   11:30   . . . . . . . . . . . . . . . . . . .    6 :30   . . . . . . . . X
X   12:00   . . . . . . . . . . . . . . . . . . .    7 :00   . . . . . . . . X
X   12:30   . . . . . . . . . . . . . . . . . . .    7 :30   . . . . . . . . X
X    1 :00   . . . . . . . . . . . . . . . . . . .    8 :00   . . . . . . . . X
X    1 :30   . . . . . . . . . . . . . . . . . . .    8 :30   . . . . . . . . X
X    2 :00   RM   TEST RECORD 2                       9 :00   . . . . . . . . X
X    2 :30   . . . . . . . . . . . . . . . . . . .    9 :30   . . . . . . . . X
X                                                                            X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
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We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many of our authors are eager to improve their programs if they know what you want. And, of course, we want to know about any bugs that slipped by us, so that the author can fix them. We also want to know whether our instructions are meeting your needs. You are our be source for suggesting improvements! Please help us taking a moment to fill in this review sheet. Fold the she in thirds and seal it so that the address on the bottom the back becomes the envelope front. Thank you f helping us!

1. Name and APX number of program.

_____

_____

2. If you have problems using the program, please describe them here.

_____

_____

_____

3. What do you especially like about this program?

_____

_____

_____

4. What do you think the program's weaknesses are?

_____

_____

_____

5. How can the catalog description be more accurate or comprehensive?

_____

_____

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this progra

_____ Easy to use
_____ User-oriented (e.g., menus, prompts, clear language)
_____ Enjoyable
_____ Self-instructive
_____ Useful (non-game programs)
_____ Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).

_____

_____

_____

8. What did you especially like about the user instructions?

_____

_____

_____

9. What revisions or additions would improve these instructions?

_____

_____

_____

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

_____

_____

11. Other comments about the program or user instructions:

_____

_____

_____

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[seal here]